

A Giant Parietal Wall Hematoma: Unusual Complication of Laparoscopic Appendectomy

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ABSTRACT

Laparoscopic appendectomy is an established procedure in the treatment of appendicitis. Complications of the procedure are related to the Veress needle and trocar insertions or pertain to actual operative procedures. Trocar-related major bleeding is rare, and, if it occurs, is detected on the table or during the immediate postoperative period. Delay in recognition may lead to significant morbidity and mortality. We report a case of giant parietal wall hematoma in a 34-year-old female, presenting one week after discharge from the hospital. The hematoma was completely evacuated by exploration through paramedian incision, followed by an uneventful recovery.

Key Words: Laparoscopy, Complications, Hematoma.

INTRODUCTION

Laparoscopy is a relatively safe procedure, but complications do occur. A giant parietal wall hematoma is a rare presentation of trocar insertion-related injury. Bleeding from insertion sites has been reported and can happen with any procedure. The management of such bleeding depends on its extent and time of recognition.

We report a patient who presented with a giant parietal wall hematoma in the post-laparoscopic appendectomy period, who was successfully treated surgically.

CASE REPORT

A 34-year-old woman presented with recurrent right iliac fossa (RIF) pain since three months. She was diagnosed as chronic appendicitis. Her menstrual history was normal. Her investigation profile was normal.

On January 2, 1999, she underwent laparoscopic appendectomy by a 3-trocar technique—one infraumbilical, one suprapubic and the third in RIF. An infraumbilical trocar was inserted after pneumoperitoneum was established by a Veress needle. Two other trocars were inserted under direct vision. The telescope was shifted from an infraumbilical to a suprapubic port for the operative procedure, and instruments were used from the other two ports. The mesoappendix was dissected and separated from the appendix by applying clips proximally and using monopolar cautery distally. The base of the appendix was doubly ligated by no. 1 chromic catgut with the help of an extracorporeal modified Roeder's slip knot. The appendix was cut and removed through the infraumbilical port. Postoperative recovery went smoothly, and the patient was discharged on postoperative day 3. The patient was on tablet metronidazole, and she developed severe nausea, vomiting and cough for which she did not seek any treatment.

On January, 10, 1999, she came back to the hospital with severe weakness, malaise, and pain in the abdomen, with distension of the abdomen. There were no bladder or bowel complaints. On examination, she had a fever, pallor, pulse rate of 120/min., and systolic blood pressure of 100 mm Hg with minimal ecchymosis over the right lower abdomen. Peristalsis was well heard.

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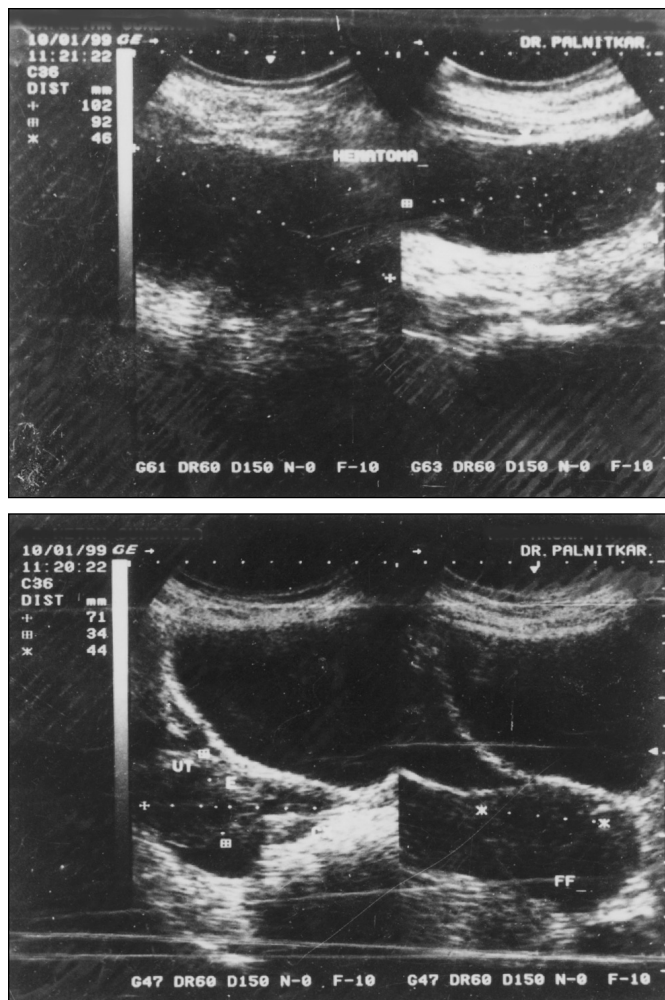


Figure 1. Sonography showing an anechoic lesion in the right side abdomen.

Her hemoglobin was 8 gm%, and sonography revealed an anechoic mass in the right side of the abdomen, with a suspicion of an extraperitoneal hematoma, as shown in **Figure 1**. She was transfused two pints of blood, adequately resuscitated and started on a conservative line of management with analgesics and antibiotics. A coagulation profile was found to be normal. Two weeks later, there was a localized lump in her abdomen, 10 cm x 15 cm in size, palpable in the right lower paramedian region. About 120 mL of old blood was aspirated from this lump, after which there was a decrease in its size. The patient was well for a week, when a serosanguinous discharge started oozing from the infraumbilical incision.

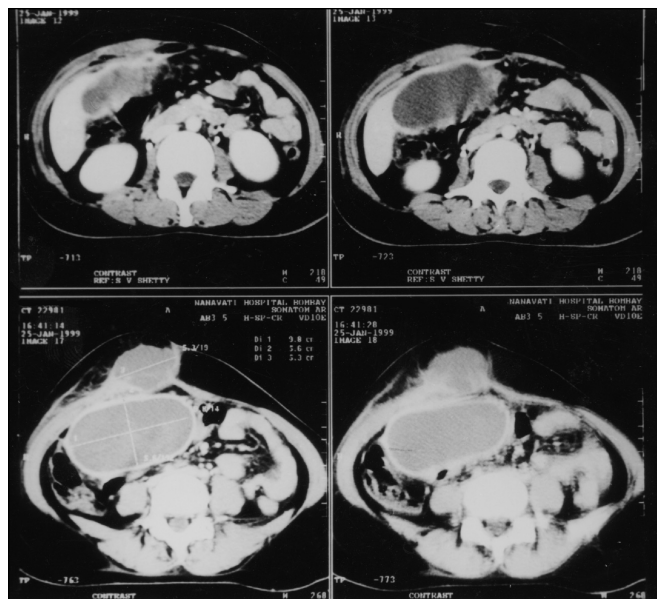


Figure 2. CT scan of the abdomen showing presence of right-sided parietal hematoma.

Hemoglobin showed a fall and the patient was transfused two pints of blood. A CT scan of the abdomen was done that confirmed the presence of a large, right-sided parietal wall hematoma, 10 cm x 15 cm x 8 cm in size, as shown in **Figure 2**. The patient was then explored by right paramedian incision on the lump; the hematoma was located extraperitoneally behind the rectus muscle and evacuated. No active bleeder was found. The patient had uneventful recovery and was discharged after suture removal. She was well on follow-up.

DISCUSSION

Laparoscopic appendectomy is an accepted procedure, but complications as reported¹ do occur, even with experienced surgeons.

Vascular complications occur because of sharp dissection during the procedure or during the insertion of a Veress needle and trocars. Minor and self-limiting bleeding from trocar puncture sites has been reported earlier with an incidence of 0.21%.² Major vascular injuries do occur and are under reported. Until now, 25 cases of major vascular injuries during laparoscopy have been reported. Of these, only two have been due to an inferior epigastric artery.³ In our case, trocar-site injury was related to

an inferior epigastric artery by infraumbilical trocar, which may have been inserted a little more obliquely, traveling above the peritoneum; bleeding occurred below the rectus sheath, which was closed effectively. The patient coughing during the postoperative period may have been one of the factors that initiated the bleeding due to the straining that amounted to loosening of the stitch on the sheath.

Thus, the bleeding here was delayed and not detected intraoperatively. The injury to epigastric vessels can at times be noticed immediately, either by visualization of a forming hematoma or due to persistent dripping of blood around the trocar site.³ If the vascular injury is detected, the bleeding can be controlled by placing through-and-through sutures on the sheath along the course of vessels, by coagulation at these sites, or by inflating a foley balloon at the trocar site, in case of minimal bleeding.^{2,3} Ultrasonography and CT scan of the abdomen were necessary to correctly diagnose and locate the hematoma.

We attempted conservative management of the hematoma by aspiration, as the patient was stable. However, she remained symptomatic with pain and oozing of serosanguinous discharge from the trocar site. Finally, surgical evacuation was inevitable. Delayed recognition of such vascular injury is associated with significant morbidity and mortality. In both the previously

reported cases, the patients with epigastric artery injuries have died postoperatively.³ Hence, delayed, severe presentation with failure of conservative management are the conditions that require prompt surgery toward an effective cure.

CONCLUSION

Laparoscopic appendectomy is a safe procedure, one that rarely causes any morbidity and mortality if performed by experienced laparoscopists. However, laparoscopists should be aware of this rare and serious and potentially lethal complication that we have reported. Once recognized, a prompt surgical treatment should be instituted.

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